

Serial No. 10/620,442
Docket No. FSF-03381

6

REMARKS

Claims 1-20 are pending in this Application. No new matter is added. Entry of this Amendment is proper because it narrows the issues on appeal and does not require further search by the Examiner.

Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki (US Patent No. 5,721,579) in view of Umeyama (US Patent No. 7,227,576).

Applicant respectfully traverses this rejection in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as defined by exemplary claim 1) is directed to a digital camera.

The digital camera includes a photographing component for photographing a subject, a setting component for setting whether or not a generation of an intermediate image is to be carried out, an intermediate image generating component for generating, when intermediate image generation, which is for verifying a state of focus, is set by the setting component, the intermediate image having a resolution between a resolution of an original image and a resolution of a thumbnail image, and a storage component for storing an original image photographed by the photographing component and the generated intermediate image.

In a conventional digital camera, as described in the Background of the present Application, when the pixel number of a photographing sensor such as a CCD or a CMOS is large, the resolution of the thumbnail image has been insufficient for verifying the photographed focus. An intermediate image having a resolution between the original image and the thumbnail image has been applied for achieving this object (e.g., see Application at page 1, line 23 - page 2, line 5).

However, a problem with a conventional digital camera is that the photographing interval becomes long when an intermediate image that has a higher resolution than a thumbnail image is generated and stored in the storage medium per photographing. This is because, in order to generate and display the intermediate image after photographing, the next photographing cannot be carried out during this processing, and it takes a long time until preparation for photographing the next image is finished (e.g., see Application at page 2, line 6-13).

Serial No. 10/620,442
Docket No. FSF-03381

7

The claimed invention, however, provides a digital camera, in which a setting component for setting whether a generation of an intermediate image is to be carried out, an intermediate image generating component for generating, when intermediate image generation is set by the setting component, the intermediate image for verifying a state of focus, having a resolution between a resolution of an original image and a resolution of a thumbnail image (e.g., see Application at page 2, lines 17-23; page 1, line 22- page 2, line 5).

This feature is important because by using this system in a digital camera, a user can optionally set whether or not to generate the intermediate image. When the intermediate image is not to be generated, the intermediate image is not generated, and because the photographing interval becomes shorter, the user can adjust the time of the photographing interval (e.g., see Application at page 3, lines 7-12).

II. THE PRIOR ART REJECTION

In rejecting claims 1-20, the Examiner alleges that one of ordinary skill in the art would have combined Suzuki with Umeyama to render obvious the claimed invention. Applicant respectfully submits, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Suzuki and Umeyama do not teach or suggest, "the intermediate image for verifying a state of focus, having a resolution between a resolution of an original image and a resolution of a thumbnail image," (emphasis added by Applicant) as recited in claims 1, and similarly recited in claims 8 and 14.

The Examiner concedes that Suzuki fails to teach or suggest this feature (Office Action at page 4, lines 12-13). The Examiner incorrectly relies on Umeyama for allegedly teaching the claimed feature.

Applicants submit that Umeyama teaches away from the teachings of the claimed invention, which recites that the intermediate image has a resolution between an original image and a thumbnail image.

Indeed, Umeyama discloses a digital camera in which an intermediate image VGA has a resolution more than the thumbnail image (Fig. 4; claim 4). Indeed, Umeyama teaches that the alleged thumbnail image is a subset of, and has less resolution than, the VGA image, which the Examiner attempts to analogize to the claimed intermediate image (col. 7, lines 23-

Serial No. 10/620,442
Docket No. FSF-03381

8

27). Umeyama even suggests a number of pixels of 640x480 for the VGA image to prepare a thumbnail image of 160x120 pixels, which is a subsample of the VGA image (col. 5, lines 30-36).

On the contrary, the claimed invention recites, "the intermediate image for verifying a state of focus, having a resolution between a resolution of an original image and a resolution of a thumbnail image," (emphasis added by Applicant) as recited in claims 1, and similarly recited in claims 8 and 14.

Therefore, Umeyama teaches away, and fails to teach or suggest, the claimed invention of claims 1, 8, and 14.

Moreover, Applicant submits that Suzuki and Umeyama do not teach or suggest, "the intermediate image for verifying a state of focus, having a resolution between a resolution of an original image and a resolution of a thumbnail image," (emphasis added by Applicant) as recited in claims 1, and similarly recited in claim 14.

Indeed, as conceded by the Examiner, Suzuki fails to teach or suggest this feature (Office Action at page 4, lines 12-13).

Furthermore, Umeyama discloses that the alleged intermediate image VGA is merely for creating a display image (col. 5, lines 23-33). Umeyama, however, is silent about, and fails to teach or suggest, "the intermediate image for verifying a state of focus, having a resolution between a resolution of an original image and a resolution of a thumbnail image," (emphasis added by Applicant) as recited in claims 1, and similarly recited in claim 14.

Based on the claimed invention of claims 1 and 14, the intermediate image is for verifying a state of focus of the original image. This would result in faster display of the images to the user of the digital camera (e.g., see Application at page 1, line 22- page 2, line 5; page 15, line 25 – page 16, line 4). Suzuki and Umeyama fail to teach or suggest this feature of the claimed invention. Therefore, the advantages of the present invention cannot be easily and efficiently achieved by the teachings of Suzuki and Umeyama.

Furthermore, Applicant submits that the alleged references do not teach or suggest, "a communicating component for communicating with the personal computer, wherein the personal computer is used to set the setting component via the communicating component," (emphasis added by Applicant) as claimed in claim 8.

That is, Suzuki discloses that after the subordinate image is obtained, the data is transmitted via a telephone line or a radio line (col. 19, lines 58-62). Suzuki, however, is

Serial No. 10/620,442
Docket No. FSF-03381

9

silent about communicating with a personal computer in the setting process. In fact, Suzuki discloses transmitting the data via a telephone line or a radio line after the intermediate image is formed. This is different from, and fails to teach or suggest, setting the setting compound by a personal computer, wherein the setting compound sets whether or not a generation of an intermediate image is to be carried out, as claimed in claim 8.

The Examiner alleges that *"since the image data to be transmitted is stored in a format to be read by a personal computer, the receiving device is considered to be a personal computer"* (Office Action at page 3, lines 12-15)

Applicant submits that even if the Examiner's conclusion above regarding storing the data in a format that is readable to a computer has any merit, the Examiner has failed to address the limitation of the claim 8, which recites, *"the personal computer is used to set the setting component via the communicating component."*

Indeed, Suzuki fails to teach or suggest setting the setting component for setting whether or not generation of an intermediate image is carried out by a personal computer, as recited in claim 8.

Moreover, Applicant submits that Umeyama fails to make up the deficiencies of Suzuki.

Indeed, Umeyama discloses a digital camera, in which an intermediate image has a resolution between an original image and a thumbnail image (col. 7, lines 16-39). Umeyama, however, is silent about, and fails to teach or suggest, *"a communicating component for communicating with the personal computer, wherein the personal computer is used to set the setting component via the communicating component"* (emphasis added by Applicant) as claimed in claim 8.

Indeed, the Examiner does not even allege that Umeyama teaches or suggests this feature. The Examiner merely relies on Umeyama for teaching of an intermediate image that has a resolution between an original image and a thumbnail image (e.g., see Office Action at page 2, last line – page 3, line 5).

Since Umeyama does not overcome the deficiencies of Suzuki, the combination of references fails to render the rejected claims obvious.

Moreover, Applicant submits that one with ordinary skills in the art would not have combined Suzuki with the teachings of Umeyama.

That is, Suzuki teaches a subordinate image processing and lacks the teachings and

Serial No. 10/620,442
Docket No. FSP-03381

10

structure of producing a thumbnail image, whereas Umeyama discloses a digital camera that produces both an intermediate image and a thumbnail image, which is not a related art with respect to Suzuki.

Indeed, adding the teachings of Umeyama to the subordinate image processing system of Suzuki would change the principle of operation of Suzuki, since the references teach two distinct systems that have different structures and are for different purposes and perform in different environments.

Since the alleged combination of the Suzuki with the teachings of Umeyama would not result in reasonable expectation of success, the Examiner has not established a *prima facie* case of obviousness. Therefore, one with ordinary skills in the art would not have combined the references, as alleged by the Examiner.

Therefore, Applicant respectfully submits that one with ordinary skills in the art would not have combined Suzuki with the teachings of Umeyama, and even if combined, the alleged combination does not teach or suggest (or render obvious) each and every feature of the claimed invention. Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-20, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Serial No. 10/620,442
Docket No. FSF-03381

11

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 06.30.08

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I hereby certify that I am filing this paper via facsimile, to Group Art Unit 2622, at (571) 273-8300, on June 30, 2008.

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